

**DEVICE FOR OPERATING DISCHARGE LAMPS  
BY MEANS OF A TRANSFORMER WITH FOUR  
WINDINGS, AND A CORRESPONDING METHOD**

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**Field of the invention**

10 The present invention relates to a device for operating  
at least two discharge lamps. Moreover, the present  
invention relates to a corresponding method for  
operating two discharge lamps. In particular, the  
present invention relates to electronic ballasts in  
which such a device is integrated. Operating discharge  
15 lamps comprises in this case both their starting and  
their being alight.

**Background of the invention**

20 It is known to operate two discharge lamps with two  
load circuits. In this case, the term load circuit  
refers to the load of a bridge that is used as an  
inverter to operate a discharge lamp. Each load circuit  
has a dedicated preheating arrangement for the  
25 respective lamp. Furthermore, according to the internal  
prior art, it is possible to operate two lamps in one  
load circuit. Here, the primary coil of a heating  
transformer of a series circuit of two lamps is  
connected in parallel and the secondary coil of the  
30 heating transformer is connected between the two lamps.  
Furthermore, it is possible to heat all the filaments  
of the lamps by transformer via secondary windings, the  
primary winding being situated in a section of the  
bridge suitable for the application.

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It is relatively complicated to implement the load  
circuits in terms of circuitry, since electronic  
control circuits with relay or transistor switches are  
required for a defined, sequential starting and